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The Forgotten First Lady

Our lady pioneers don't always get the recognition they deserve. This article aims to put that right with a look at the life of Beatrice Saltmarsh G6SF.

A short note from the QSL manager appeared in the July 1926 issue of the *T&R Bulletin* announcing that 6SF had some cards awaiting collection. This is the earliest indication we have that **Beatrice** was licensed and making contacts. It's not been possible to pin down the exact date when the Post Office, the licensing authority back then, first issued her with an experimental transmitting licence, but she'd obviously been operating on the air for a month or more when this announcement appeared in the *Bulletin*. On the key, using Morse code, it was very easy for her to hide the fact she was a young lady, and the *Wireless World* list of amateur transmitting stations compiled by **W H Merriman** during 1926, and published in November, merely listed her as *"B. Saltmarsh, Sandridge, St. Albans, Herts."* so it gave no clue that 6SF was anything out of the ordinary but, of course, she was. It wasn't until 1932 that "*Miss*" appeared before her name in any call book and by then she was one of several ladies in the UK with experimental transmitting licences.

Family and Education

Beatrice, or Bee as she was known to her family, was born on May 2nd 1904 at Barnet in Hertfordshire. She was the fourth of six children and joined two older sisters, **Violet** (b.1897) and **Eileen** (b.1900), and an older brother, **Robert** (b.1901). At that time her parents lived at Munden Lodge in New Barnet. However, her father was quite successful in business and they moved to a larger property at Sandridge in 1907. This rambling old Victorian rectory with substantial grounds, which was the family home until just before WW2, was known as The Old Vicarage but is now the Lyndon Residential Care Home, run by the Salvation Army. Her younger brother and sister were born at Sandridge; **Philip** in 1908 and **Kathleen** in 1911. **Fig. 1** is a portrait of Beatrice painted by the renowned English portrait artist **Frank Owen Salisbury** at some time before WW1 and if her pose is anything to go by, she must have been quite a studious child.

From the age of 11, Beatrice attended Queen Margaret's School (QMS), located then at Atholl Palace, just east of Pitlochry. The school had originally been based in Scarborough but had been forced to relocate to a safer part of the UK following the bombardment of the Yorkshire port by the battlecruisers *Derfflinger* and *Von der Tann* of the German High Seas Fleet in December 1914. The main building of the school and Queen Margaret's Hall were damaged during the shelling and there were fears that the port might be attacked again, so the headmistress and bursar moved the whole school up to the West of Scotland. QMS returned to Scarborough in 1919. The photograph of Beatrice in **Fig. 2** was taken in 1920, when she was 16 years old. She left QMS at 18 with a Higher School Certificate in the usual wide range of subjects, including science and mathematics – the courses were much less specialised then than they are today and many more subjects were studied at the higher level.

Her father, **(Edward) George Saltmarsh**, was an Original Member of the Port of London Authority and one-time President of the Corn Trade Association. At the beginning of the Great War, he was appointed to serve on the Royal Commission on Wheat Supplies, a crucially important job for the country at this time, and later in the war, in recognition of this work, he was knighted by **King George V**. After the war, Sir George received several other honours; the Legion d'Honneur from France, the Order of Leopold II from Belgium and the Commander of the Order of the Crown from Italy. His war work elevated him from prominent businessman to a person of standing in the country.

Into Wireless and Amateur Radio

Her interest in wireless must have developed while she was at QMS for Beatrice joined the Institute of Radio

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Engineers (I.R.E.) as a junior member in 1923, the year after she left school, and became an Associate Member two years later when she came of age – 21 in those days. No professional qualifications were necessary for either of these classes of membership, just a passionate interest in radio. Membership gave her access to the Proceedings of the I.R.E., a journal that contained the latest research and ideas in radio science.

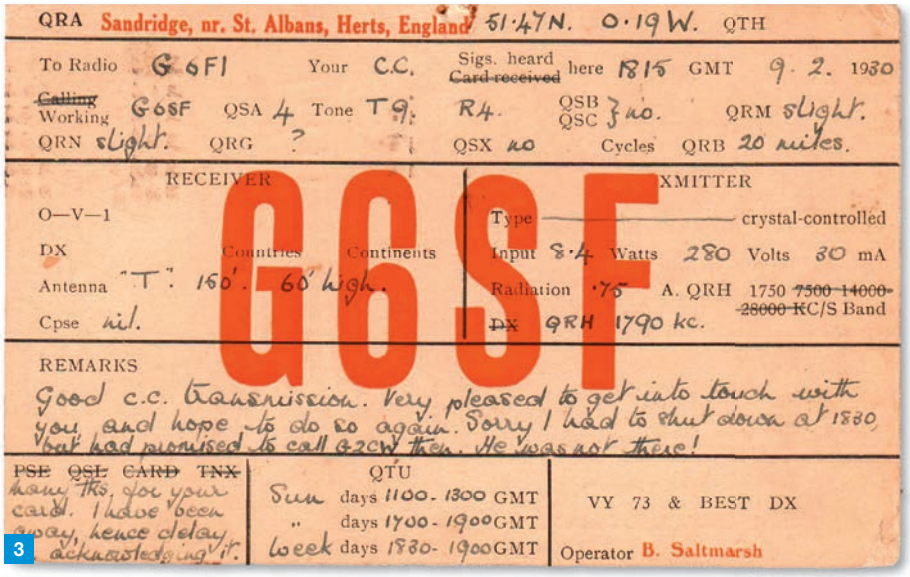
It's been difficult to establish exactly when Beatrice was first licensed because the Post Office didn't release any official information about amateur experimenters

in those days and call books were compiled by the main radio magazines, such as *Popular Wireless*, *Modern Wireless* and *Wireless World*. They relied on individual amateurs sending in their details and also the names and addresses of other amateurs they'd contacted, so these lists were hardly comprehensive. She was certainly licensed by May 1926 but it could have been several months earlier.

Beatrice was not just an operator, she was a keen experimenter too, with a wide range of interests. She made all her own equipment and operated CW on several amateur bands. Her interest in radio wave propagation led her to design and construct instruments for recording the strength of signals on paper charts so she could do comparative studies of how signal levels varied with time and frequency. An article on the design of her signal-intensity recorder was published in *Wireless Engineer* in December 1927. This was a professional journal, so it was quite a coup for an amateur to get something published in it. The article, or perhaps I should call it a scientific paper, was attributed to B. Saltmarsh, 6SF – Beatrice still wasn't letting on that she was a young lady!

Her QSL card, **Fig. 3**, from February 1930 shows how effective her antenna system was on 160m. A DC input power of 8.4W wouldn't have given her much more than 5W output, and to get 0.75A of antenna current with that amount of power means the radiation resistance plus the ground loss couldn't have been much more than 10Ω. That's extremely good by any standards. Evidently, she was also active on 40, 20 and 10m. Note that there's no mention of 3500kc/s (80m) on her QSL card. That's because special permits were required for operation on 80m in the UK in the early '30s and these were only issued for a limited range of experimental work with quite restrictive conditions. Few bothered to apply for them because the band couldn't be used for general communications work.

Interestingly, the reverse side of her QSL card, **Fig. 4**, has an advertisement for a company called Quartz Oscillators Ltd and there is some evidence she may have been a director of this company along with **A Hinderlich G2QY**, who was Managing Director according to advertisements in *Experimental Wireless* and the *T&R Bulletin.* The company made quartz resonators not just for amateurs


QRA Sandridge, nr. St. Albans, Herts, England 51·47N. 0·19W. QTH
To Radio G 6FI Your C.C. Sigs. heard Card received here 1815 GMT 9. 2. 1930
Calling Working G6SF QSA 4 Tone T9 R4. QSB QSC 3 no. QRM slight.
QRN slight. QRG ? QSX no Cycles QRB 20 miles.
RECEIVER
O—V—1
DX Countries Continents
Antenna "T" 150'. 60' high.
Cpse nil.
XMITTER
Type crystal-controlled
Input 8·4 Watts 280 Volts 30 mA
Radiation ·75 A. QRH 1750 7500 14000 28000 KC/S Band
DX QRH 1790 kc.
G6SF
REMARKS
Good c.c. transmission. Very pleased to get into touch with you and hope to do so again. Sorry I had to shut down at 1880 but had promised to call G2CW then. He was not there!
PSE QSL CARD TNX
have thks for your card. I have been away, hence delay acknowledging it.
QTU
Sun days 1100- 1300 GMT
.. days 1700- 1900 GMT
week days 1830- 1900 GMT
VY 73 & BEST DX
Operator B. Saltmarsh
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Cristales para toda clase de usos de amateur.
Crystaes que podem ser usados por qualquer amador.
Kristaller for alle amatør formaal.
Kristaller för varje amatör.
Kristallen voor alle Amateur doeleinden.
Kristályok mindenféle amatör célra.
أحجار بلوريه لكل غرض من اغراض الفن
QUARTZ OSCILLATORS, Ltd.
1, LECHMERE ROAD,
LONDON, N.W.2, ENGLAND.
ST ALBANS 11 45 AM 19 FEB 1930 HERTS
ONE PENNY
J. G. Ingleton Esq,
48 Grasmere Road,
Muswell Hill,
London,
N. 10.
4

but also for scientific laboratories and government departments.

Revelation & Tragedy

When I started researching Beatrice's life, it was quite difficult to find any information about her at all and progress was very slow. She had not renewed her transmitting license after WW2 and there was no mention of her in any of the post-war radio magazines. I made little headway until I discovered through a genealogy website that her sister Eileen had married a direct descendant of the Suffolk painter **John Constable**. Eileen's son was also called **John Constable** and had become a well-known artist in his own right. He died in 2002 but his widow **Freda**, a writer and art historian, was still alive and I managed to trace her. She was not well acquainted with the Saltmarsh side of the family but could remember a few interesting snippets of family history she'd been told by her husband, who'd been born at the Saltmarsh family home in Sandridge back in 1928.

Apparently, 'dabbling' in wireless was considered by the female members of her family to be quite an unsuitable

Fig. 1: Portrait of a very young Beatrice Saltmarsh painted by Frank O. Salisbury (Image courtesy of the portrait owner).
Fig. 2 Photograph of 16-year-old Beatrice Saltmarsh taken by Cherry & Co. of St. Albans in 1920 (Image courtesy of the Saltmarsh family)
Fig. 3 QSL card sent to G6FI by G6SF for 160m contact in February 1930 (Courtesy of the G4UZN Collection).
Fig. 4 Reverse (address) side of G6SF QSL card showing advertisement for Quartz Oscillators Ltd. (Courtesy of the G4UZN Collection).

pastime for a young lady, so Beatrice was somewhat reticent about disclosing who she was and what she did to any strangers. Close family friends would have known about her interest in wireless, of course, because she used to fix their broadcast radios whenever they went wrong. These family friends included such notables as **George Bernard Shaw (GBS),** no less! Mrs Constable recalled her husband mentioning that Beatrice had repaired GBS's wireless set on occasions and later when I traced one of her nephews he told me he'd found thank-you letters from GBS when he cleared out his aunt's cottage after her death; so the story was true. The mere fact that Beatrice had treasured these letters from GBS for such a long time shows that it meant a great deal to her, yet she hadn't boasted about it at the time. Disclosing this would have done wonders for her technical standing in the all-male world she'd joined but because she was not one for self-publicity or boasting, she made no capital of it at all.

I suspect she was quite relieved when **Barbara Dunn 6YL** came along and started boasting that she was the first young lady (YL) operator in the UK. Barbara wasn't quite as shy as she's been made out to be. She was very good at self-promotion and regularly wrote to all the main pre-war radio magazines about this and that, and also took part in many DX contests over the years, which gave her even more publicity. Yet, she wasn't the first UK YL operator, as she claimed, and may not have been the second either! **Miss Jane Dicks 6JN**, was licensed in late 1926, or early 1927, and probably beat Barbara Dunn to second place.

Beatrice managed to hide her gender well enough until after her father's death. Tragically, he was killed in the *Royal Scot* train disaster in 1931. The express had passed through some points at high speed and derailed near Linslade, Bedfordshire, killing six people. Life changed dramatically for Beatrice and her family after that and since she no longer hid the fact she was a young lady after his death, she may have done so originally out of concern and respect for her father. Certainly, a lot of fuss would have been made about the fact she was the first YL to hold an amateur transmitting licence, had it been widely known, and she may have worried that this might embarrass her father in some way. Even though her entry in the various call books after 1931 revealed that she was a young lady, her deception in the early years had worked well enough, whatever its purpose. Even **Austin Forsyth G6FO** of *Short Wave Magazine*, who was normally pretty well informed about amateur radio people and events, had been completely misled. Commenting on the ladies in 1938, he placed **G6SF** after **G6YL** (1927), and seemingly after **G(M)2IA** (**Ann Burns**, licensed in December 1928, or possibly January 1929), but before **Nelly Corry G2YL** (1932).

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Fig. 5 Beatrice instructing ATS girls on the finer points of engine maintenance at the ATS Motor Transport Company Training Centre, Camberley, Surrey, in 1941. Copyright Imperial War Museum (D5719).

War Service

Beatrice was extremely patriotic and signed up to join the Auxiliary Territorial Service (ATS) the very day that Prime Minister **Neville Chamberlain** declared war on Germany, despite that fact that September 3rd fell on a Sunday in 1939. She was eager to do her bit, as many were at the time, and you'd expect her to have been assigned a role in radio communications in one or other branch of the Services, but she wasn't. She stated on her application form that she had specialist radio knowledge and CW skills but in September 1939 the War Office was focused on releasing as many soldiers from support roles as possible – they needed them for combat duty. Consequently, women drivers with some knowledge of vehicle maintenance were needed to replace male drivers in the Royal Army Service Corps (RASC). Beatrice was sent off to do a 15-month course in vehicle maintenance and repair at the RASC Workshops in Colchester. She passed out as a 1st Class Fitter in February 1941 and was posted to the ATS Motor Transport Company Training Centre (MTTC) in Camberley, Surrey, as an instructor. **Fig. 5** shows her pointing out the finer points of engine maintenance to a group of ATS girls at the MTTC. She's the one with the stripes on her sleeve leaning away from the photographer. This was taken prior to September 1941, when she was promoted to 2nd Subaltern. She was also made officer-in-charge of the workshops at about the same time. Within

a few months, in March 1942, she was promoted yet again; this time to Subaltern (full Lieutenant).

The war had started to turn in the favour of the Allies by the beginning of 1943 and the build-up to D-Day began in earnest shortly afterwards. Beatrice was posted to the Royal Electrical and Mechanical Engineers' (REME) Workshops at Mill Hill in April 1943, becoming the first female commissioned officer to serve in the REME. Then in March 1944 she was transferred to the REME Central Workshops, becoming a Junior Commander (ATS equivalent of Captain). She was demobilised in July 1946 and remained on reserve until May 1954, when she relinquished her commission at the age of 50.

Post-War

Beatrice did not return to amateur radio after the war, having found a new interest in mechanical engineering. In the early 1950s she took part in the Monte Carlo Rally as a member of an all-female team. Other so-called female teams had competed in the rally before the war but their mechanics were always men. This time Beatrice's team had a co-driver/mechanic who was female, and there are no prizes for guessing who that was! Family legend has it that her team finished the last stage of the rally going down into Monaco with Beatrice lying across the car bonnet holding two ends of a temporary fuel line together. I can well believe it! She was undoubtedly a remarkable and determined lady.

Beatrice's army records show her address as 14 Avenue Road, St. Albans, which was where her mother lived during the war. However, following the war Beatrice set up home in Brackendale Road, Camberley. According to one of her nephews, she had one room in the house kitted out for clock and watch repairs, as that was her passion after the war. She also had a pit dug out in the garage to make it easier to work underneath her car – she did all her own repairs and maintenance. Beatrice always bought British and insisted on collecting new cars direct from the factory – no one else was allowed to drive her Jaguar, not even, or perhaps particularly, professional delivery drivers. She also kept fit by playing Badminton and participated in the Hampshire Badminton Championships several years running during the 1950s.

It's pointless to speculate about what might have been but I can't help wondering whether Beatrice would have returned to amateur radio after the war had she been posted to the Royal Corps of Signals instead of the RASC at the outset. On the other hand, had she seen the best years of amateur radio before WW2 and did she revel in the idea of a new challenge? Perhaps the war gave her the opportunity to follow a completely different interest that her family would have frowned upon in normal circumstances. We'll never know.

Beatrice Saltmarsh was admitted to Frimley Park Hospital near Camberley, Surrey, and died of a heart attack on September 2nd 1988. She was 84 years old. Her death certificate stated that she was a 'retired mechanical engineer' but had the War Office not been so focused on replacing male RASC drivers with women in 1939, she might have been an engineer of a different kind. I can't help feeling it was amateur radio's loss.

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